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FIG. 1—CEDAR WAXWING

FIG. 2—CATBIRD AT NEST

THE
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NO. 113
A QUARTERLY JOURNAL OF ORNITHOLOGY

VOL. XXXII DECEMBER, 1920 NO. 4

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BIRD NOTES FROM ITASCA COUNTY, MINNESOTA

BY ALVIN R. CAHN

Each passing year, with its opening of new country to homesteaders and tourists, makes it more and more difficult for the nature lover — the one who seeks the undisturbed wilderness — to find gratification for his longing. The passing years have witnessed the deforestation of much of northern Wisconsin and Michigan, and with the disappearance of the old trees has gone the animal life both big and small. The virgin forests of white pine are practically gone, razed either by the willful hand of man, or, through his carelessness, by fire. Whereas the last generation enjoyed this virgin wilderness, the present generation must content itself with isolated and protected areas, or with an occasional giant pine that has, somehow, withstood the ravages and accidents of Time. All of which is greatly to be regretted, the more so as much of the devastation could have been prevented. Each succeeding generation will have to content itself with less and less of the wilderness as it was, until eventually a time must come when, outside of national and state preserves, carefully policed and protected, but little deserving of the title of "wilderness" will remain.

To the zoölogist, northern Wisconsin and Michigan are still practically virgin soil, and there is much research work to be done in both states. Northern Minnesota is,

however, still a paradise practically untouched by the zoologist, and it is high time that some definite records be filed concerning the species found, and their abundance. With the constantly changing conditions which are met with in this area — fires, road construction, and the general advance of civilization — there must of necessity follow a constantly changing condition among the wild life of the region, to conform with the physiographic and topographic changes of the country. There will be some few new additions to the fauna as a result of these changes, but far outnumbering these will be the disappearance of species which are unable or unfitted to compete or associate with man. These changes are already going on. In the county visited the elk and caribou are gone; the moose is fast going; the beaver is nearly gone, as are the raccoon, the badger and the fox; the bear is very scarce. And this is just a beginning; these animals must go, and others must inevitably follow them closely. Among the birds the pileated woodpecker and the pin-taled and spruce grouse will not long endure. It will not take many years to alter greatly the lists of birds and mammals of Itasca county.

During the summer of 1919, the writer had the opportunity of spending nearly five weeks in Itasca country, in northern Minnesota. This county lies in what may be termed the second tier of northern counties in that state, and includes within its boundaries 2,844 square miles, or 1,858,281 acres of territory, of which 128,768 acres are water. Few counties can offer such diversified surroundings. Towns, cities, great mining interests, lumbering, miles of wilderness, numberless lakes, extensive swamps, great rivers, mammals and birds in abundance, Itasca county stands unique in the writer's experience. Lake after lake, each set in its frame of wilderness without sign of human habitation; rolling hills from the summit of which one scans a panorama of great beauty encompassing pine-wood slopes, curling rivers and turquoise lakes; cold nights with the multitude of mysterious night sounds, and

the flickering aurora overhead, it is indeed a wonderland to any lover of the great outdoors. But into this wonderful country has crept that curse of the woods—fire—and great areas of fire-scarred country are, unfortunately, not infrequent. Scarcely a summer goes by without some serious damage in this large county, and more damage will continue to accrue year after year throughout the country as a whole just so long as the people realize that no one is punished for starting forest fires. A large percent of these fires is the result either of deliberate firing, or of carelessness, and either at this stage of the game, is criminal. But in the eyes of the world, a crime against posterity is no crime, because posterity can not prosecute, and so it would seem inevitable that useless devastation must go on.

Botanically, the region is of great interest. Of the evergreens, the white pine (*Pinus strobus*) is coming as a good second growth in many places, together with jack pines (*Pinus divaricata*), spruce (*Picea mariana*), and balsam (*Abies balsamea*). Tamarack (*Larix laricina*) are common in certain localities, and is the dominant species in many of the swamps. Of the hardwoods, the white birch (*Betula papyrifera*) and the aspen (*Populus tremuloides*), are perhaps the dominant species, with a goodly sprinkling of balm of Gilead (*Populus balsamifera candicans*) and yellow birch (*Betula lutea*). Of the smaller plants, the sphagnum bogs, or "muskeags" as they are more commonly called, abound in pitcher plants (*Sarracenia purpurea*) each with its own little biota. Great areas of blueberries (*Vaccinium corymbosum*) are abundant, and the yield of berries during the summer of 1919 was unparalleled. In the less dense portions of the woods, the bunchberry (*Cornus canadensis*) gives rich color to the ground, with a profuse scattering of wintergreen (*Gaultheria procumbens*), while in the shade, wherever there is suitable decaying wood may be found fine growths of Indian pipes (*Monotropa uniflora*). To one who seeks carefully

is revealed large numbers of that dainty woods-growing orchid, the lasser rattlesnake plantain (*Peramium repens*). Of wild flowers there is no end, and the open places simply glow with the purple of the wild asters, the red of the wild phlox (or "fire-weed," as it is called) and the yellow of wild sunflowers and golden-rod.

There is a certain phase of the wild life situation of Itasca county that deserves special mention. The water fowl situation is most peculiar, and forms a problem of considerable interest. The hundreds of lakes of the vicinity, varying in size from Lake Winnibigoshish down to the many small, nameless, sphagnum-bordered water-holes, many of them choked with wild rice (*Zizania palustris*), all of them abounding with food for ducks, should prove a veritable paradise for breeding ducks and other water birds. Yet, in spite of the fact that thirty-three or more of the larger and more important lakes, many nameless small lakes, two important rivers and many smaller streams were visited, with the exception only of loons and a very few mallards and black ducks, not one species of water bird was seen by the writer until August 18, when a single horned grebe was located. This was followed on August 22 by the finding of seven pied-billed grebes when the writer was on his way to the station. Conditions are such that there should be countless numbers of ducks in the region, and it is not long since many species bred within the county, but of late years, probably within the last six years —there has been a great decrease both in breeding species and migrating numbers, leaving the area practically duckless during the summer. This situation is rather difficult to explain, and it seems rather improbable that the departure could be due to the hunting, which in quantity surely could not be compared with the bombardment which greets the fall migration in Wisconsin year after year, without apparent effect on the migration route. For the benefit of those who will work over the territory covered

in this paper in later years, a list of the lakes visited is appended.

The writer's stay in Itasca county was made possible through the kindness of Dr. Sydney Kuh of Chicago, who has a cabin on Lake Minnewanka. The writer was his guest from July 18 to August 22. Every facility for studying the wild life was at hand, and over a thousand miles covered by machine assured the writer of fairly comprehensive data, and made possible the visiting of much territory otherwise inaccessible. To Dr. Kuh, therefore, and to his guide, Mr. George Dwigans, the writer expresses his appreciation for the opportunity of listing the 108 species of birds which follow.

1. Horned Grebe—*Colymbus auritus* Linn.

A single individual was found on August 18, in one of the very small, nameless lakes. There is no breeding evidence, though it is undoubtedly a summer resident.

2. Pied-billed Grebe—*Polilymbus podiceps* (Linn).

Not a single individual of this species was seen until the morning the writer left for home, when seven were seen feeding in a small pond along the road. Very common on migrations, and probably a breeding species to some extent.

3. Loon—*Gavia immer* (Brunn.)

An abundant breeding species. Practically every body of water, containing fish—whether dignified by a name or not—harbors a pair of loons, and its family. The larger lakes frequently have several pairs, though they keep separated as a rule. Interesting gatherings were frequently seen on several lakes, when as many as eight or nine adult birds would congregate, and with much calling and splashing of wings would apparently play together for as long as half an hour. Then one by one the birds would take wing, and return to their own lakes.

4. Herring Gull—*Larus argentatus* Pont.

An occasional summer visitor from either Lake Superior or the region to the north. Only two birds of this species were seen, both traveling toward the lake. More common in the early spring and fall.

5. Common Tern—*Sterna hirundo* Linn.

On a number of occasions these birds were seen, but only about the larger lakes. One bird in juvenile plumage was seen over Balsam Lake, indicating that the species breeds in the vicinity.

6. Black Tern—*Clidonias nigra surinamensis* Linn.

A common breeding species about all of the larger lakes. Found throughout the county on nearly every body of water, though never in large numbers. The remnants of recently used nests were found among the rushes near the shore. Food consists largely of the common minnow of the region, *Semotilus atromaculatus*, together with small perch, and pickerel up to two inches in length.

7. American Merganser—*Mergus americanus* (Cass.)

Common during the migrations, and from what information came to hand, probably formerly a breeding species. None was seen.

8. Red-breasted Merganser—*Mergus serrator* (Linn.)

Very likely a breeding species. Several individuals were reported by Mr. Dwigans in early August, and a pair is said to have bred at the south end of Lake Minnewanka. Formally more common. This is the common "fish duck" and "saw-bill" of the county.

9. Hooded Merganser—*Lophodytes cucullatus* (Linn.)

None of these birds was seen, but the described presence of a fish duck with a white triangle in its head makes it clear that the species is at least a migratory one.

10. Mallard—*Anas platyrhynchos* Linn.

A common breeding species. Breeds throughout the county about the less frequented lakes affording shelter and food. The abundance of wild rice (*Zizania palustris*) in certain of the shallower lakes and even along the edges of the deeper lakes, affords the necessary attraction. Marble Lake, nearly overgrown with rice, was the breeding ground of a considerable number. Heard frequently about Lake Minnewanka, to which they probably came from Marble Lake.

11. Black Duck—*Anas rubripes* Brewster.

Seen quite frequently, and usually in company with the mallards. Breeds along with them near Marble Lake, and frequents the wild rice and rushy, swampy shores of the undisturbed lakes. Food is at present in untold abundance, and it is altogether surprising that there are so few species of ducks breeding in the county, and so few pairs of those that do breed.

12. Baldplate—*Mareca americana* (Gmel.)

A migrant only, fairly common during both the spring and fall migrations.

13. Blue-winged Teal—*Querquedula discors* (Linn.)

Common as a migrant only. May still be a breeding species in some parts of the county, but none was seen. Strangely enough,

the writer could find no evidence of the presence of the green-winged teal, in spite of the number of hunters interviewed.

14. Shoveller—*Spatula clypeata* (Linn.)

Found only during the migrations, and then in not very great numbers. At Ely the writer found a mounted specimen of a full plumaged male, shot in Itasca county in the early fall (sometime during September) of 1917.

15. Pintail—*Dafila acuta* (Linn.)

Another species which is a migrant only. It seems likely that this duck bred within the county up to about five years ago, but the writer found no sign of its presence during his stay.

16. Wood Duck—*Aix sponsa* (Linn.)

A migrant only, so far as data at hand indicate. It is not unlikely, however, that the bird still breeds in some of the more heavily timbered regions. A mounted specimen at Ely, of a female in good plumage, was labeled "Itasca County, July, 1916."

17. Greater Bluebill—*Marila marila* (Linn.)

A migrant only, more common, apparently, in the fall than in the spring.

18. Lesser Bluebill—*Marila affinis* (Eyt.)

Probably by far the most abundant of the migrant ducks. Strangely enough, the hunters of the region distinguish very clearly between this and the foregoing species. It is possible that the species still breeds within the county, as it did formerly, but in small numbers. Known locally as "blackheads."

19. Golden-eye—*Clangula clangula americana* Bonap.

A migrant only, quite common for a short period of time on both migrations, and among the last to go in the fall and the first to return in the spring.

20. Bufflehead—*Charitonetta albeola* (Linn.)

A migrant only, and neither very common; not found in any considerable numbers. Known locally as the "butterball."

21. Canada Goose—*Branta canadensis canadensis* (Linn.)

Now a migrant only. Formerly a breeding species. With the opening up of the country, and the arrival of numerous homestead ers, the goose has been driven from its old breeding grounds in this county, as it has in most parts of Wisconsin and Michigan. Bred near Marble Lake as recently as the summer of 1915.

22. American Bittern—*Botaurus lentiginosus* (Montag.)

Quite a common breeding species in the low, swampy regions, but only in the more open—and consequently often the more settled—regions. Seen several times near the Prairie River and Lawrence Lake. A young bittern, but recently out of the nest, was seen from the machine on August 3d, as we drove over the bridge crossing one end of Long Lake.

23. Great Blue Heron—*Ardea herodias herodias* Linn.

A common breeding species; in fact, really abundant. Seen about the shores of nearly all the lakes, and on many of the rivers. One bird of this species was seen on probably twenty different occasions, at almost the exact same spot, fishing along the shores of the Prairie River. Another individual used to pay early morning visits to the spring-board at the end of the pier in Lake Minnewanka, where he had good fishing for frogs and small perch.

24. Virginia Rail—*Rallus virginianus* Linn.

A breeding species, though not very common, where conditions are suitable. Heard quite frequently, and seldom seen. Prefers the wet regions along small creeks and swamps about lakes.

25. Sora Rail—*Porzana carolina* (Linn.)

Apparently somewhat more common than the preceding species. Breeds in wet, open swamps. Several individuals were seen, usually along small streams. Sometimes spoken of as the "rice bird."

26. Coot—*Fulica americana* Gmel.

A very abundant migrant, and possibly a breeding species, though the writer found no evidence of breeding. Two seen on August 12 at the north end of Lake Minnewanka, feeding among the wild rice and arrod-head (*sagittaria* sps.). Known to breed within the county within the last six years.

27. Spotted Sandpiper—*Actitis macularia* (Linn.)

A common summer resident, and most likely a breeding species. Frequents the shores of the lakes and rivers, and is partial to those having either sandy shores or numerous "dead-heads," on which the birds delight to "teeter." The abundance of small aquatic insects of every sort affords plenty of food for the sandpipers, and it is surprising that this is the only species seen.

28. Killdeer—*Oxyechus vociferus* (Linn.)

A single individual of this species was heard flying overhead on August 10. The type of country is such as to be unattractive to the plover, except in such places where there has been a considerable amount of clearing and plowing. In such places the bird undoubtedly nests.

29. Spruce Grouse—*Canachites canadensis canace* (Linn.)

Formerly rather common within the county, the spruce partridge is all but exterminated, because of both hunters and the continuous forest fires, which have nearly ruined its haunts. Stays rather closely within heavy spruce or cedar swamps, and is anything but timid.

30. Ruffed Grouse—*Bonasa umbellus umbellus* (Linn.)

For a time nearly extinct in the county, the ruffed grouse is

now very apparently on the increase, and if the closed season could be held for another five years, the species would be out of danger. However, the continued protection has affected the birds in such a way that they have lost all their timidity, and they sit along the roadside and watch the automobiles go by, and permit one to alight and take their pictures! As a result of this boldness, when the period of the closed season expires, there is going to be sad slaughtering among the grouse, and probably 75% of the present stock will be exterminated the first week. After which time the species will again be in a desperate plight. It is not enough to protect our game by closed seasons: we must protect them by education of the hunters as well. A continuance of the closed season is urged.

31. Sharp-tailed Grouse—*Pediœcetes phasianellus phasianellus* (Linn.)

Occurs, probably as a breeding species, within the county, but is practically exterminated. A mounted male of the species, taken in Itasca county, was found in Ely, labeled "September 10, 1915." Known locally as the "pin-tailed grouse."

32. Turkey Vulture—*Cathartes aura septentrionalis* Wied.

Unless there is a decomposing carcass in the vicinity, the vulture is rarely seen. Yet, let an animal of any considerable size die, and within twenty-four hours the vultures have found him. Several were seen, soaring high overhead, drifting here and there aimlessly in the wind, in a way which only the vulture can. There is no evidence of the species breeding within the county, though it is possible that it does.

33. Marsh Hawk—*Circus hudsonius* (Linn.)

A common breeding species throughout the county. Seen often circling low over the wet swamps, where it was found to feed on snakes (*Thamnophis sirtalis*) and frogs (*Rana pipiens*).

34. Sharp-shinned Hawk—*Accipiter velox* (Wils.)

But two birds of this species were seen. One was in flight, the other perched on a dead tree, with the body of a white-throated sparrow in its claws.

35. Cooper's Hawk—*Accipiter cooperi* (Bonap.)

A single Cooper's hawk was seen, flying rapidly overhead, with the body of a small song bird of unknown identity, in its claws.

36. Red-tailed Hawk—*Buteo borealis borealis* (Gmel.)

Both heard and seen frequently. On July 30, a full plumaged bird was seen near Long Lake, which gave the party a fine view of its chestnut brown tail. The bird showed no timidity, and passed within fifty feet.

37. Red-shouldered Hawk—*Buteo lineatus lineatus* (Gmel.)

Somewhat more abundant than the preceding species, the red-shouldered hawk was numerous throughout the county. Both of these species are known locally as "chicken hawks," and are usually not differentiated. There is no breeding evidence for either species.

38. Bald Eagle—*Haliæetus leucocephalus leucocephalus* (Linn.)

A single specimen with the white head was found at Ely, taken in Itasca county on August 14, 1915. Eagles are not uncommon within the county, but it was the writer's luck not to have located the species. Whether or not the Golden eagle occurs is a question: the general opinion among the hunters seems to be that it does, but as there is no proof at hand, and as there is considerable room for confusion between the immature bald eagle and the golden, the latter is not listed.

39. Sparrow Hawk—*Falco sparverius sparverius* Linn.

About the region in which the writer lived, the sparrow hawk was never seen. However, on several trips which took him into more open country, this species was found to be abundant. In suitable locations—burned over lands, or clearings near homesteads—the sparrow hawk was the feature of the landscape, perched upon conspicuous dead limbs. Undoubtedly a breeding species.

40. Osprey—*Pandion haliaëtus carolinensis* (Gmel.)

A common breeding species. Three nests were found, all containing young. One near Cedar Lake, one near King Lake and one near Long Lake. The adult birds were seen constantly going to and from the nests, and early in August the young were seen sitting around the edge of the nest. By the middle of August the young were out, and were flying. Found looking for fish over nearly all the lakes at one time or another.

41. Barred Owl—*Strix varia varia* Barton.

Not seen, but heard on the nights of July 24, 29, 31 and often during August. No doubt a breeding species.

42. Great Gray Owl—*Scotiaptex nebulosa nebulosa* (Forst.)

A winter visitor only, and never common. A mounted specimen at Ely bears the inscription: "Itasca County, February 11, 1914."

43. Screech Owl—*Otus asio asio* (Linn.)

Heard on the night of August 1; this is the only evidence the writer has of the species. However, the hunters describe "a small owl with horns," which must be this species. No doubt breeds within the county.

44. Great Horned Owl—*Bubo virginianus virginianus* (Gmel.)

The commonest of the owls. Seen several times in broad daylight, both at rest and on the wing. Frequents the heavier timber, where it nests. Two young, recently out of the nest, were seen. Heard only occasionally.

45. Snowy Owl—*Nyctea nyctea* (Linn.)

A not uncommon winter resident, which freqently causes trouble by robbing rabbit snares and traps.

46. Yellow-billed Cuckoo—*Coccyzus americanus americanus* (Linn.)

A haunter of the hard-wood thickets, the cuckoo was seen only on two occasions, though its call was frequently heard during rambles through the woods. A nest, probably of this species (certainly a cuckoo's nest) was found, bearing signs of recent occupancy.

47. Kingfisher—*Ceryl alcyon* (Linn.)

One of the most abundant birds of the county. Seen everywhere—on every lake and every river and stream—always noisy, always fishing. The nesting holes of the kingfisher were found in nearly every sandy hill that afforded a suitable surface. With the birds so abundant, it seems likely that they take considerable toll of the fish, but there is no sign of a scarcity of fish because of its ravages. (Wisconsin take note!)

48. Hairy Woodpecker—*Dryobates villosus villosus* (Linn.)

Quite a common resident and breeding species. Seems to prefer the hard-woods to the evergreens, both for breeding purposes and for feeding.

49. Downy Woodpecker—*Dryobates pubescens medianus* (Swains.)

Somewhat more common than the hairy, the downy seems to be nearly as much at home among the evergreens as among the hard-woods, though the latter are chosen for the breeding locality, as a rule. Young only recently out of the nest were seen July 22.

50. Yellow-bellied Sapsucker—*Sphyrapicus varius varius* (Linn.)

The most common of the woodpeckers, by a considerable margin. The hard-woods—particularly the birches and maples—show abundant signs of the labors of this injurious species. Innumerable young were to be seen throughout the latter half of July.

51. Northern Pileated Woodpecker—*Phlœotomus pileatus abieticola* (Bangs.)

This large woodpecker was surprisingly in evidence throughout the writer's stay in the woods. Seen many times, scarcely a day passed without the drumming of the "cock-o'-the-woods" being heard. Shows a preference for the large stands of evergreens. The nesting holes were frequently found, and were unmistakable

because of their size. These usually occurred in evergreens—and usually in living trees—at a height varying between five to twenty-five feet.

52. Red-headed Woodpecker—*Melanerpes erythrocephalus* (Linn.)

A common summer resident at least, and a breeding species. Seen quite frequently in the burned-over areas where there is a good young stand of hard-woods. Seldom seen in the deep evergreen woods. Young birds were seen on two occasions, the first on July 19.

53. Northern Flicker—*Colaptes auratus luteus* Bangs.

Like the red-headed woodpecker, the flicker prefers the more open places to the deep woods, where it is practically never found. Young second growth hard-woods form the most attractive haunts for the species. A breeding species, and abundant; known locally as the "yellow-hammer."

54. Whippoorwill—*Antrostomus vociferus vociferus* (Wilson).

Although not seen, the whippoorwill occurs within the county, and its call is not infrequently heard. The finding of the bird would be a lucky accident, as it must be considered rare.

55. Nighthawk—*Chordeiles virginianus virginianus* (Gmel.)

Very abundant, and a breeding species. Active at nearly all hours of the day, they reach the height of their activity just at dusk, when they perform their aërial stunts. With jerky flight, they rise in a spiral course to a height of about two hundred feet, when they dive toward the earth in a sharp diagonal, bringing themselves to a halt just over the ground with a peculiar vibrating sound. This is caused by the vibration of the wings, as is easily seen at close range.

56. Chimney Swift—*Chætura pelagica* (Linn.)

In spite of the few places suitable for breeding, the chimney swift is fairly common, finding breeding sites in the chimney of all the homesteads. The pair which nested in the chimney of our cabin got the young out of the nest August 2. About the towns the birds are considerably more in evidence.

57. Ruby-throated Hummingbird—*Archilochus colubris* (Linn.)

Seen constantly in the flower garden near the cabin, where the birds frequented the tiger lilies and red dahlias. A lichen-covered nest belonging to the species was found on the ground one day after a bad windstorm. It was on a basswood (*Tilia americana*) limb, and was typical in every way.

58. Kingbird—*Tyrannus tyrannus* (Linn.)

By all odds the most abundant bird of the region, and the species which may be said to be characteristic of the county. Kingbirds are everywhere, except in the deep woods. They sit along

chasing crows, hawks and owls whenever they appear. The burned-over land is their favorite haunt, and here they sit perched on the point of a needle-like shaft, awaiting the appearance of insects. Breeds throughout the county, most often near the roads.

59. Phœbe—*Sayornis phœbe* (Lath.)

Both seen and heard frequently. A common breeding species, which is found most commonly in the hard-woods, where their mournful note is quite characteristic. Several old nests were found, including one evidently deserted and containing three eggs, which was found on a shelf near a broken window in an abandoned homestead.

60. Wood Pewee—*Myiochanes virens* (Linn.)

A common summer resident and breeding species. A pair had their nest under the eaves of the sleeping shack, and used to sit side by side on top of an upturned canoe near by, and watch us dress each morning.

61. Least Flycatcher—*Empidonax minimus* (Baird).

Seen and heard frequently near camp. During the third week of July one of these birds was seen carrying food, though neither the nest nor the young were ever discovered. Seem also to prefer hard-woods.

62. Blue Jay—*Cyanocitta cristata cristata* (Linn.)

A common resident, more abundant in the summer, however, than in the winter. There is probably a partial migration of the species southward. Breeds in hard-wood or evergreen woods alike, and nests were found in both. Very quiet during the breeding season; as soon as the young leave the nest they become loquacious, and grow more and more noisy as the season advances.

63. Canada Jay—*Perisoreus canadensis canadensis* (Linn.)

A single individual was seen near the southern border of the county on August 20. It is possible that this may be a breeding species, but it is far more common as a winter resident. During the winter the birds appear in considerable numbers, and live up to their reputation of daring and fearlessness by making themselves perfectly at home about the camp. Commonly known as the "Lumber Jack" and "Moose bird."

64. Crow—*Corvus brachyrhynchos brachyrhynchos* Brehm.

Common in the more open places, where they congregate in considerable numbers. Rather wild and difficult to approach, and always on the lookout for intruders. A breeding species.

65. Raven—*Corvus corax principalis* Ridg.

Apparently a winter resident only, as no evidence of their presence was found, though the writer fully expected to find them

here as he did in northern Michigan.[1] Common during the winter months.

66. Cowbird—*Molothrus ater ater* (Bodd.)

A common summer resident and breeding species. Seen most frequently about homestead clearings and in the vicinity of towns. A female white-throated sparrow was seen feeding a young cowbird.

67. Red-winged Blackbird—*Agelaius phœniceus phœniceus* (Linn.)

Common wherever there are rushes and suitable conditions. Seen around nearly every river and lake. Young just out of the nest were seen on July 21, and another brood of young but recently out was seen as late as August 19, in spite of the fact that the species was already beginning to flock. Many old nests were found.

68. Meadowlark—*Sturnella magna magna* (Linn.)

As one might expect from the type of country, the meadowlark is seldom seen except in the cleared fields about homesteads and in the near vicinity of towns. Here, however, the species is reasonably common, and often heard. A breeding species.

69. Baltimore Oriole—*Icterus galbula* (Linn.)

Another bird that seeks the vicinity of dwellings because of the clearings. Seen but once in the hard-wood regions, but often seen and heard about clearings. Several old nests were found, mostly in elm and white birch.

70. Rusty Blackbird—*Euphagus carolinus* (Müll.)

About the commonest of the blackbird family, the rusty blackbird was seen almost daily. Usually found along the roads, and in the vicinity of clearing and burn-over areas. A common breeding species, which begins to flock shortly after the young are out of the nest. Large flocks were seen as early as August 8, but the number and size of the flocks steadily increased as the weeks wore on. Does no little damage, together with the next species, in the grain fields.

71. Bronzed Grackle—*Quiscalus quiscula æneus* (Ridgw.)

A common breeding species and summer resident. Begins to gather in quite large flocks early in August. Nests were seen in spruce and Norway pines only.

72. Evening Grosbeak—*Hesperiphona vespertina vespertina* (Coop.)

A breeding species. Seen several times in the immediate

[1] Cahn, Alvin R., Notes on the Vertebrate Fauna of Houghton and Iron Counties, Michigan. Trans. Wis. Acad. Sci., Arts and Letters, Vol. XIX, Part 1, p. 496.

vicinity of the cabin on Lake Minnewanka, where an entire family —parents and two young—were constantly attracted to a cherry tree (*Prunus pennsylvanica*). Here they were easily watched, and proved to be not the least timid. Their feeding habits deserve note: the ripe cherries were picked and the flesh removed from the seed by one bite and a little squeezing, and discarded. The seed was then cracked nearly in half—considerable pressure must have been required, for the "pop" could be heard a distance of one hundred feet—and the heart of the seed removed and eaten, the outer shell being discarded. The birds visited the same tree day after day, and had the ground fairly littered with the flesh and pit-hulls of the fruit.

73. Purple Finch—*Carpodacus purpureus purpureus* (Gmel.)

Seen only once, on August 5, when three individuals were located along the road. Possibly a breeding species within the county, but doubtful. More common as a migrant, particularly in the fall and early winter.

74. Goldfinch—*Astragalinus tristis tristis* (Linn.)

Common as a summer resident and breeding species. Begins nesting during the third week of July, when the birds were seen gathering nesting material. Young recently out of the nest were seen on August 16.

75. English Sparrow—*Passer domesticus* (Linn.)

Inevitable. Found, however, only in the vicinity of homesteads and towns, and never seen in the woods.

76. Vesper Sparrow—*Poœcetes gramineus gramineus* (Gmel.)

A very close second to the kingbird for the position of dominant bird of the clearings. Seen in great numbers along every roadside, where there is a clearing. A breeding species, with young out of the nest at least during the third week of July.

77. White-throated Sparrow—*Zonotrichia albicollis* (Gmel.)

This sparrow is, together with the above species, a close second to the kingbird for the position of dominant species in the burned-over area, and is the dominant bird of the underbrush. Seen and heard constantly in the above situations. A female and two young were seen on July 22.

78. Tree Sparrow—*Spizella monticola monticola* (Gmel.)

A single specimen of this species was seen, a male. The bird was sitting along the roadside, in full song, on July 22. Very likely more common than data indicate, and possibly a breeding species.

79. Chipping Sparrow—*Spizella passerina passerina* (Bech.)

A rather uncommon summer resident, and probably a breeding species, though there is no confirmatory evidence. Several were seen during the second week in August, and still more during the early part of the third week, while none was seen during July. Heard in song only once.

80. Junco—*Junco hyemalis hyemalis* (Linn.)

A common summer resident, and breeding species. Found usually near the roadside, or in the young bushes which are grow-over newly burned territory. On July 24, a junco was seen carrying food, but the nest could not be located in the brief time available for the search. Song not heard, though the lisping chirp was often in evidence.

81. Song Sparrow—*Melospiza melodia melodia* (Gmel.)

Until the writer got into northern Minnesota, he had seen very few song sparrows in 1919, the species being for some unknown reason very scarce in Illinois and southern Wisconsin during the spring and early summer. However, the numbers found in Itasca county were decidedly reassuring, as the song sparrow proved to be one of the most commen sparrow in the region. Found both in the woods and about the homesteads and towns. A common breeding species.

82. Chewink—*Pipilo erythropthalmus erythropthalmus* (Linn.)

Seen on a number of occasions, and once (on July 24) carrying food. Only a single male was seen, but probably a dozen or more females showed that the species is fairly common. Their secretive habits make it difficult to form a good idea of the abundance of the species.

83. Rose-breasted Grosbeak—*Zamelodia ludoviciana* (Linn.)

A pair of these birds visited the cherry tree one day at the same time that the evening grosbeaks were there, and while they too, discarded the flesh of the fruit, they did *not* crack the pit, but swallowed it entire. A breeding species, as proven by the finding of the two young birds on August 2.

84. Indigo Bunting—*Passerina cyanea* (Linn).

Seen but once, the indigo bird undoubtedly is more common than data indicate. The bird was heard in full song several times between August 8 and 12, near the cabin, and an old nest—presumably of this species—was found in a hazel bush within two feet of the ground.

85. Scarlet Tanager—*Piranga erythromelas* Vieill.

A not uncommon summer resident and breeding species. A pair and three young were seen on July 31, and these, with the

exception of a single full plumaged male, are the only records the writer has for the species.

86. Purple Martin—*Progne subis subis* (Linn.)

A common summer resident and breeding species. Every homestead has its martin house, and every house its full quota. Seen about nearly every house, and quite commonly in the towns. The birds began to flock the end of July, and departed during the night of August 10.

87. Barn Swallow—*Hirundo erythrogastra* Bodd.

Common about the towns and homesteads, where they nest whenever a suitable spot is found. Young out of the nest were seen on the wing on July 18.

88. Bank Swallow—*Riparia riparia* (Linn.)

Common wherever there is a place suitable for nesting. Colonies of fifty or more nests were seen in sand banks, with an occasional kingfisher nest mixed in with the swallow nests. These nesting places are usually along the roadsides, as the cuts made for the roads afford the most spacious nesting sites available. Young still in the nest as late as August 11 indicate a possible second brood.

89. Rough-winged Swallow—*Stelgidopteryx serripennis* (Aud.)

Not nearly as common as the preceding species, but found nesting along with them occasionally. Owing to the small amount of space available to bank-nesting birds, the possible places are generally pretty well crowded.

90. Cedar Waxwing—*Bombycilla cedrorum* Vieill.

Common during the summer, and a breeding species. Seen gathering nesting material in the swamps as early as July 22. Feeds commonly on the wild cherry (*Prunus pennsylvanica*), eating either the entire fruit, or sometimes only the flesh.

91. Red-eyed Vireo—*Vireosylva olivacea* (Linn.)

Heard in song during the entire stay in the woods, though but seldom seen. A female was seen feeding two young on August 17, indicating a second brood. The food in this case was the wild black cherry (*Prunus serotina*), and the female was having difficulties in poking entire cherries down the small throats. Several vireo nests were seen, all showing considerable use of birch bark in construction.

92. Black and White Warbler—*Mniotilta varia* (Linn.)

A spring and fall migrant only, apparently. Several birds of this species were seen on August 20, which date was the beginning of the fall warbler migration. Was found on the trunks of both hard-woods and evergreens, but seemed to prefer the former.

93. Nashville Warbler—*Vermivora rubricapilla rubricapilla* (Wilson)

Three were seen on August 20 and another on August 21. A migrant only.

94. Yellow Warbler—*Dendroica æstiva æstiva* (Gmel.)

Surprisingly few warblers of any species were seen, and the writer can offer no evidence of a single species breeding. The yellow warbler was not seen until August 20, when the fall migration began, and on that date only two were found.

95. Black-throated Green Warbler—*Dendroica virens* (Gmel.)

On August 21 the woods seemed fairly alive with birds of this species, but only for about two hours—between 10 a. m. and noon. Probably twenty were seen in that time, and many others heard. Later in the evening several more were heard. The writer regrets that he had to leave the woods just as the fall migration was getting well under way.

96. Maryland Yellow-throat—*Geothlypis trichas trichas* (Linn.)

Heard on August 8, and several seen after that. It is very likely that this warbler breeds in the county, but the writer did not prove it. Prefers the wet swamps where there is a considerable amount of young underbrush.

97. Catbird—*Dumetella carolinensis* (Linn.)

The writer was rather surprised to find so few birds of this species. Although seen and heard a number of times, the catbird was not one of the common species found. Young a few days out of the nest, but no longer attended by the parents, were seen on July 25.

98. Brown Thrasher—*Toxostoma rufum* (Linn.)

Quite a common breeding species, and considerably more in evidence than the preceding species. Found frequently in hardwood thickets, and but rarely in evergreen tangles. Perfectly silent, the brown thrasher proved shy and timid, even when one intruded around the nest.

99. House Wren—*Troglodytes aëdon aëdon* Vieill.

Like the purple martin, the house wren is to be found in the vicinity of every homestead, and about the gardens and yards in the towns. Seen occasionally in the woods, the bird is shy and disappears from view like a flash. The species was in song during July, but was seldom heard after August 5. Breeds commonly in any available spot about the buildings.

100. Long-billed Marsh Wren—*Telmatodytes palustris palustris* (Wilson).

A breeding species in the cat-tail swamps around the lakes and streams. Several old nests were found about Cedar Lake and

Rice Lake, and the species was both seen and heard constantly near the cabin on Lake Minnewanka. Very shy and secretive.

101. Brown Creeper—*Certhia familiaris americana* Bonap.

Little data is at hand concerning this unobtrusive little fellow. Although seen four times during July, there is no breeding evidence at hand. Shows a decided preference for hard-woods.

102. White-breasted Nuthatch—*Sitta carolinensis carolinensis* Lath.

A common resident and breeding species, though there seems to be somewhat of a fall migration of the species. More common, certainly, in the summer than in the winter. Heard often in both hard-wood and evergreen woods.

103. Red-breasted Nuthatch—*Sitta canadensis* Linn.

Nearly as common as the preceding species, the little red-breasted nuthatch was often heard about camp, and seemed to show a little preference for evergreen woods. There is no evidence concerning breeding.

104. Chickadee—*Penthestes atricapillus atricapillus* (Linn.)

Common during the summer and winter, and is a breeding species. A pair was seen with four youngsters just out of the nest on August 16. Heard in song during the entire stay in the woods, and the "dee-dee-dee" notes were the ones most often heard.

105. Ruby-crowned Kinglet—*Regulus calendula calendula* (Linn.)

A single male of this species was the only evidence of the presence of this little bird. On August 7 a male lit on the fence around the flower garden not ten feet from the writer, flashed his ruby crown several times, inspected him very carefully, and flew away.

106. Hermit Thrush—*Hylocichla guttata pallasi* (Cab.)

Heard in song twice, on July 18 and 30. Seen several times, but it is evident that the species is not very common within the areas visited. Stays strictly within the hard-wood thickets, and probably breeds there.

107. Robin—*Planesticus migratorius migratorius* (Linn.)

Common throughout the county. Seen in the burned-over areas in considerable numbers. A female was seen feeding her young on August 3. One gets quite a different conception of our everyday birds when met with miles away from any human habitation!

108. Bluebird—*Sialia sialis sialis* (Linn.)

Found, like the robin, but not as commonly, in the burned-over areas, where it nests in old woodpecker holes, usually in a charred needle-like pine shaft.

The following are the more important bodies of waters visited in Itasca county and immediate vicinity:

LAKES

1. Anderson
2. Ball Club
3. Balsam
4. Bass
5. Beaver
6. Big Rat
7. Brush Shanty
8. Burnside
9. Cass
10. Cedar
11. Crystal
12. Hill
13. King
14. Lawrence
15. Little Rat
16. Long
17. Marble
18. Mink
19. Minnewanka
20. Pike
21. Pokagama
22. Rice
23. Silver
24. Spring
25. Swan
26. Trout
27. Vermillion
28. Virginia
29. Wasson
30. Wheel-scraper
31. White Iron
32. White Swan
33. Winnibigoshish

RIVERS

1. Big Fork
2. Prairie
3. Mississippi
4. St. Louis

Zoölogical Laboratory,
Texas Agricultural and Mechanical College,
College Station, Texas.
October 20, 1919.

THE CARDINAL IN NORTH-CENTRAL IOWA.

BY HOWARD CLARK BROWN

One of the birds which has been followed with a great deal of interest by bird students of North-Central Iowa is the cardinal (*Cardinalis cardinalis cardinalis*). Within the past ten years there has been a rather strange Northern advance of this bird within the region with which this article deals. The reason for this advance no one can guess, but the advance is far more than a local phenomenon. As Miss Althea R. Sherman wrote, "In the past ten years there have been numerous accounts from the Atlantic seaboard and westward of the northern advance of the Cardinal." * And then she continues with the statement that "it appears that this northward movement has been all along the line of its range from northern Massachusetts to the Mississippi River." This report of Miss Sherman's was published in 1913. At that time, so far as I know, the cardinal had not been reported from North-Central Iowa at all. Three years later the first report for that region reached the Bird Bureau at Charles City, Iowa. And from 1916 up to the present date we have had a number of interesting records of the cardinal's appearance within our area.

When the Califor Naturalist Club of Charles City, Iowa, first began keeping definite bird records, in the summer of 1914, not a single cardinal was reported from any member. We did not think it at all strange that the cardinal was not on our list. Why should we have expected him? We associated the Red Bird with that group which belonged to regions considerably south of our region. We knew that Southern Iowa claimed the cardinal as a resident. We knew that he came up both of the great rivers which bound our state, reaching far north of the boundary

* Sherman—Carolinian Avifauna in Northeastern Iowa—In The Auk, Vol. XXX, No. 1, P. 78.

which was his limit in the central portion of the state. Old settlers had never known the Red Bird. None of the bird students of the region had ever seen him at that time.

Carlen Rudy, in telling of the birds seen in the winter of 1918-19 at Ft. Madison, in Lee county, says, "On the morning of December 26, 1918, I observed several male cardinals and one female near Ft. Madison. On December 27, as I was on my way to Hillsbow, by train, I saw many cardinals in association with chickadees, juncoes, and titmice. The snow was quite deep and the temperature below zero. Four miles from Hillsbow, on a farm, I observed the cardinals daily until I left the place, on January 5, 1919. I also observed them near Salem in Henry county, during that same period. They were abundant during the entire time that I was there. The temperature ranged from zero to twenty below." The same record which is taken from the bird journal kept by Mr. Rudy states that the farmers of the region told him that the Red Birds came in the fall and remained throughout the winter. However, another observer of the same region told him that they were present in the summer also, though not so numerous.

The reason for the greater numbers in the winter might be that some which had summered further north came a little south for the winter, or simply that those which had nested in obscured places were not observed during the summer, whereas the openness of winter made them conspicuous. The first records of our north-central region have been such as to lead me to the belief that the cardinal, though a resident in most of his range, may be migratory to a slight extent in the very edge of it. The Ft. Madison region is far from the edge of the present range of this bird. But I think that the large numbers of individuals observed in that region in the dead of winter may be accounted for in the fact that there were some which were following migratory habits, though of very slight extent.

If data were available regarding the cardinal along all points of the Mississippi valley from the Ft. Madison region

to the region of New Albion, in North-eastern Iowa, a stimulating study might be made of the cardinal's habits. Since I have not been able to find such, however, I have merely picked up here and there notes which observers have sent to me. The notes are very fragmentary, and are too scattered to be of much scientific value. But such as I have been able to secure, I shall here present.

In Allamakee county, Miss Althea Sherman has made notable contributions to our knowledge of the cardinal. In a second article which she published regarding the cardinal in that region she says that the first one seen in that locality so far as she was able to find any records, was in November, 1906, when the late Senator Robert Glenn of Wyalusing, Wis., and his friend, Mr. H. W. Brown, of Lancaster, Wis., saw a male cardinal just north of the village of Wyalusing.* On December 11, 1906, Mrs. Mary E. Hatch saw one of the species in McGregor, Iowa. And in February, 1907, Senator Glenn again saw one. The next record from the McGregor region is the one which Miss Sherman can claim as her own. On April 17, 1908, two cardinals were seen by her on the banks of the Mississippi River, directly across from Wyalusing and six miles from her home. The slow advance of these birds up Sny Magill creek is a characteristic and interesting chapter in the story of the cardinal. In April, 1913, Miss Sherman said that she was told that nearly a dozen cardinals were seen by a farmer on a bluff near this creek. They had become resident on this farm at about this time. The first record which Miss Sherman gives of the cardinals as winter boarders, is that of Mrs. M. A. Jordan of McGregor, who had a cardinal at her bird table during the last week of December, 1908. This bird remained upwards of three months. After that winter the species came regularly. Mrs. M. A. Jordan is also quoted as having had the first nesting record of these birds, when two broods came from

* Sherman — Article on the cardinal in Wilson Bulletin — Sept., 1913, P. 150.

their nests in her yard, in the summer of 1913. Eight nesting pairs were located about McGregor that same season. Miss Sherman continues in a recent letter, as follows: "They are much more abundant now, nearly every yard with suitable shrubbery boasting a nesting pair of cardinals."

The same author says, "Its first appearance at Lansing, Iowa, was early in November, 1913, as reported to me by Miss Martha H. Hemenway (See Wilson Bulletin for Dec., 1913,—page 205). Several birds were seen by her. It took seven years for the cardinal to advance from the mouth of the Wisconsin River near Wyalusing up to Lansing, a distance of about thirty miles as the river flows."

Concerning the progress of the same species in Wisconsin, Miss Sherman says, "It was first reported from Wyalusing in November, 1906. Next reported from Blue River and Boscobel, Wis., in March, 1909. Following the course of the Kickapoo River to the farm of Lee Wanamaker a half mile north of Steuben, where they were fed in winter and seen almost daily throughout the year, dating from 1911. Farther up the Kickapoo at Gays Mills the first cardinal was seen in December, 1908, by Miss Ellen Hammond. A year later she saw a pair of these birds six miles north of Gays Mills. This carries the advance up the Kickapoo about thirty-two miles or to about the same latitude as Lansing has.

"It is said to be a habit of the cardinal to follow the course of rivers and smaller streams. This has been true in northeastern Iowa. Its progress along the lowlands of streams has been more rapid than westward of the Mississippi to the bleak prairie lands where it now is well established." * This record is certainly one which is a good basis for further study. And now let us turn to the reports of Mr. Charles A. Russell, formerly of Harpers Ferry, Iowa.

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* Sherman — Wilson Bulletin — Sept., 1913.

On January 16, 1916, Mr. Russell wrote, "The bird visitors at our 'Free Lunch Counter' today included a pair of hairy woodpeckers, a pair of downy woodpeckers, a pair of white breasted nuthatches, a pair of jays, a dozen juncoes, a dozen chickadees, the usual number of sparrows, and a pair of cardinals." He continues, "I was at New Albin yesterday afternoon and a man told me that he had recently seen a pair there." Harper's Ferry is more than a dozen miles north of McGregor, and New Albin is fully twenty-five miles north of Harpers Ferry, by river route. On March 5, 1916, Mr. Russell writes, "Our usual number of boarders stay with us. Our cardinal is beginning to sing now."

In a letter of March 11, 1917, the same observer says, "We have kept a lunch counter all winter and had a large number of regular boarders." In listing the regulars for that winter he includes one pair of cardinals. He continues, "The cardinals are pretty shy and keep at a safe distance. I saw two pair of them at Waukon Junction this winter. They have been reported from New Albion." In the same report Mr. Russell tells of red winged blackbirds which he had seen that week and which he thought had spent the winter on the islands of the Mississippi. The river at that time was frozen. The red wings, I believe, were far north of their usual winter range if they had actually spent the winter there. He also mentions the red headed woodpecker as sometimes remaining with them. The red head was not discovered as a winter resident in our north-central region until the winter of 1917. But since that year, we have had no record at all, during the winter season.

One would expect that the birds would follow the river valleys, going much farther north for winter ranges in the valleys than on the plains, for the valleys furnish plenty of seed for the seed eaters, and considerable protection from drifts, from cold winds, and from freezing temperatures. As the southern plants make their ways up the

river valleys, so it may be that the birds also follow. On December 25, 1917, Mr. Russell wrote from Harpers Ferry, "Our cardinals are again with us this winter but other birds seen very scarce." It appears from this, that once established in a given area, the cardinal tends to maintain itself. The last report from Mr. Russell as regards cardinals, was in a letter of March 23, 1918, in which he says, "On a walk to Waukon Junction, yesterday, I saw six pairs of cardinals." As one reads such records as these he can not help but wonder how much farther north the Red Bird will go. He has apparently reached the very northern limit of our state along its eastern border. And now for the record of the inland.

Quoting from a letter from Miss Sherman, again, "Mrs. Ida Hobson Pike, a daughter of Judge H. N. Hobson, has written me of the coming of the cardinal to West Union. The first one was seen in the woods near West Union in November, 1915. In a few days one appeared at the feeding table of Mrs. Pike. He came every day until spring. In November, 1916, he reappeared. Soon his dead body was found on the snow in a nearby wood, apparently the victim of a bird of prey. Others came. Two years later she was feeding four pairs at one time."

The cardinals in reaching West Union probably followed the Turkey River to Elgin, then gradually worked westward, following that branch of the Turkey which goes through West Union. And at the same time that they were working north and west along those streams, they were apparently working north along the Cedar river, and west along the Upper Iowa. They probably worked westward from some such place as New Albin, following the Upper Iowa, for it was not until 1917 that it was seen at Decorah, Iowa. Mr. A. F. Porter writes of the species, "It appeared here (Decorah) about three years ago, and has since become more and more plentiful in this locality each year but it is not a common species. It winters here and I have seen it here this winter (1919-20), and every

winter for the past three years. The male is certainly a beauty and I hope it will continue to make its home with us."

Osage, Iowa, in Mitchell county, and almost the exact latitude of Decorah, did not report cardinals until July, 1918. It was on a far more direct route, being on the Cedar River which flows quite directly north in that region, but the fact that Decorah is nearer the great stream from which the cardinal wave seems to first have spread, seems to have caused the later arrival in the interior. However, the directness of the route did have some influence, for Charles City, in Floyd county, and only twenty miles by road, almost directly south of Osage, had some reports of cardinals which antedated the Osage reports by a couple of years. The river way would add considerable in mileage to the distance between these two places. But it would not seem that it could possibly add enough to account for the difference in dates, especially when one considers other problems regarding the bird's appearance here.

When Master Harold Fredrickson, President of the Toksali Nature Study Club, of Charles City, first reported that he had seen a cardinal, on Burroughs Day, April 3, 1916, the naturalists of Charles City were tempted to doubt his vision. The report was given by the two boys, Harold Fredrickson, and Leslie Kober. The bird had been seen in Wildwood Park. That is a tract of woodland just at the edge of Charles City, and would have been one of the most likely places for such birds that we knew. But cardinals had never been seen in our region and we wondered if we dared credit it on our club list. We experienced that strange uneasiness which naturalists always feel when things "'aint just as they ough'to be."

A year went by and we did not report the birds on our year's list. In 1917, however, early in the summer, reports came from some boys on the south side of the river, that they had seen a cardinal in the trees of their yard. The description was asked for and was given with consid-

erable definiteness. An all-red bird with black chin and a red crest. Then, on July 4, 1917, Mr. C. L. Fenton, who was then president of the Califor Naturalist Club, reached my home much out of breath. "Get ready at once and come along with me!" was his command. Naturally, I wondered the reason for the excitement. When I questioned him, he only said, "Don't stop to argue. Come on!" When well on our way toward Wildwood Park he said, "I just left here this morning, just before coming to your place. I saw a cardinal."

It was very amusing to me, for Mr. Fenton had been one of the strongest opponents to the record of the year previous. I tried to convince him that he had seen "crooked," but he would not be convinced and the cardinal went down on his annual list that year. It was the second definite record for our region; this is, the second record given by trained observers.

I did not see the cardinal that year, as it had apparently left the region in which Mr. Fenton had seen it soon after his departure. At any rate, it was not to be seen in that wood when we arrived.

The latest report of the cardinal for Charles City, was on January 3, of this year, (1920), when a pair was observed near the home of Mr. Clement L. Webster. Mr. Webster's home is only a few rods from the edge of the Cedar River; and it was there, in an orchard that Mr. Webster first discovered the pair. Regarding the discovery of this pair, Mrs. Mary A. Dutton, Bird Bureau Recorder of the local Naturalist Club, wrote, "I had the joy of my life Saturday morning. What was it? Oh, it was a genuine thriller! Only nature lovers can imagine what it means. We were very busy when a phone call interrupted our work. Mr. Webster announced that there was a pair of cardinals in his apple trees. It was bitter cold, snow deep, and walks icy, but I started with another club member, Master John Burns, for the orchard, which had been mentioned. Work or no work, I speedily made my

escape, field glasses in hand. When we reached Mr. Webster's place we were told that the birds had gone on down to the river. And so we went after them. And there on the river bank, there, to my joy and delight sat Mr. Cardinal on a three foot weed stem, eating seed. His crest was very erect, and his constant peep reminded me of a chickadee when hunting on the bark of a tree, save that it was louder and more penetrating. Mrs. Cardinal was cold, apparently, for she was fluffed out, perched in the fork of a tree."

Concerning the coming of the cardinal to Osage, Iowa, in Mitchell county, and about twenty miles north of Charles City, Mrs. Flora May Tuttle says. "The cardinal has been seen in July of 1918, and quite often after that, throughout the year of 1918-1919, in the north-east, south-east, and south-west corners of Osage." I can not believe that the cardinal was very common, however, for this naturalist would not have missed it for so long a period. She says concerning her own observation of the bird, "I was coming home from a meeting of the Naturalist Club (Osega Naturalist Club), March 20, 1919, where I had told the members that the cardinal had been seen several times since January 4, at the Nursery; when just as I got within twenty feet of the house I heard a strange bird note. And looking up, not more than eight feet above my head, on a branch of a hard maple sat my first cardinal for Mitchell county."

From Elma, which is between Osage and Charles City in latitude, but some twenty miles or more west of Osage. in Howard county, Mrs. H. L. Spaulding reported cardinals to the Bird Bureau of the Charles City Club. Her report follows: "The cardinal was seen in a thicket near the creek, in town (Elma) during May, 1919, by Miss Lois Pickering. It remained all summer. I saw it several times during the summer, in the door-yard of one of my neighbors. The mate was always along, and they flew only when I approached nearer than ten or fifteen feet. The birds were seen Christmas Day and frequently since by

Professor and Mrs. Plopper, in the same locality." The route by which the cardinal reached Elma was probably by way of the Wapsipinican River. The fact that he reached there at the same time as he reached Charles City, as a winter resident, is rather interesting. Of course birds had been reported before in both these places, in the summer. But the first report of their being found as winter residents was during the same winter. I imagine that the cardinal will eventually become a resident with us in much the same manner in which it has become so in the north-eastern part of our state, or in the north-western. How long it will take for them to become other than a rarity in our bird reports, we can hardly estimate. Perhaps a couple of years will do that. I am tempted to think that some of the Osage reports are not as reliable as they should be. The Osage plant woman, Mrs. Tuttle, knows her business, but some of the other reports may possibly have held errors. Otherwise, I can not understand why the cardinal should have appeared there in greater numbers, earlier than he appeared at Charles City. Of course it is conceivable that they, for some reason, have skipped the territory about Charles City. However, the weed seed possibilities are the same at Charles City as at Osage, and there is quite as much in the way of protective forests, brush-lots, etc. One thing we do not have at Charles City which is notable at Osage, and that is the high limestone cliffs which line the one side of the Cedar near Osage vicinity. Of course such cliffs furnish a great windbreak against the cold winter gales. It may be that the shelter of such has led the cardinal to continue with greater numbers in that region, whereas he has passed by our territory, or remained in very scattered detachments.

The future of the cardinal in the middle-northern portion of our state is most interesting. I am on the Red Bird's trail and shall welcome with great fervor the establishment of our locality as a home within the limit of the cardinal's northern range.

OBSERVATIONS ON THE HABITS OF SOME BREEDING BIRDS OF CHATHAM COUNTY, GEORGIA

BY W. J. ERICHSEN

Colinus virginianus virginianus. Bob-white. This species, the only gallinaceous bird that breeds in the county, is moderately common, although it is restricted to certain sections; localities which are apparently suitable being entirely avoided. During the breeding season it is frequently met with in pairs along roadsides traversing open country wherever suitable cover borders them. It is not known to occur on Ossabaw island, one of the largest sea islands on the coast of Georgia, although the character of the country on this island and the mainland is in all respects very similar. It is quite generally and commonly distributed in the cultivated, and open, sparsely timbered districts adjacent to Savannah. Since 1914 I have encountered it in increasing numbers in the heavily forested portions, particularly in the dense undergrowth usually found about the margins of swamps. This apparently is an indication that this species is lately somewhat modifying its habits, since before the year mentioned I knew this bird as strictly an inhabitant of the open country only. While more and more numerously frequenting the forests, it does not appear often to seek nesting sites in them; still restricting itself nearly exclusively to open territory as a breeding environment; ordinarily selecting brushy fields. However, on May 22, 1915, I discovered a nest containing eleven apparently heavily incubated eggs in thickly wooded land bordering a dense swamp. This nest was placed at one end of a large prostrate log, which apparently had long lain there, being nearly completely covered with pine straw, and dead leaves of many species of deciduous trees which grew in profusion nearby. The surrounding undergrowth was mostly myrtle bushes, interspersed with a few very small gum and oak bushes. The nest was situated partially under a large brush pile composed of several bushy dead

oak limbs matted together, and was very effectively concealed. With the exception of the lining, which consisted of dried grasses, this nest was composed of pine straw. The circumstances surrounding the discovery of this nest are peculiar. I was making an effort to flush a Chuck-will's-widow (*Antrostomus carolinensis*) which I suspected was nesting in the vicinity, when I noticed from a distance of about fifty feet a Bob-white (probably the female) running slowly in a circle and trailing her wings on the ground apparently in great distress. A short search revealed the nest, as it was close to the point where I had noted the bird. I was surprised, and somewhat unnerved, on stooping to examine the contents of the nest, to find that a huge King Snake had taken possession and was on the point of beginning its feast.

The Bob-white is not by any means wholly a ground frequenting species. I have repeatedly seen it alight in the high branches of tall trees, but that it does so for purposes of feeding I have been unable to determine. I do not believe, however, that such is the case, since I have never observed it feeding elsewhere than upon or very close to the ground. It is exceedingly valuable as a destroyer of the boll weevil and other destructive insects. The coveys begin to break up about the middle of April, and by the first of May Bob-whites are to be seen only in pairs, and their calling and answering notes can be heard throughout the day from many sections of their haunts. Nest building commences sometimes as early as the latter part of April. My earliest breeding record is May 14, 1916, when I examined a nest containing fourteen fresh eggs, this being also the largest number that I have observed in a nest. As far as my observations go an egg is laid daily, and incubation does not commence until the complement is finished. Throughout the long trying period of incubation the male remains nearby, cheering his mate with his one and two syllabled whistling note. My many attempts to observe and study a brood of young Bob-whites has resulted in failure

each time. Occasionally I have surprised a mother leading her brood across a country road, but upon entering the cover, the tiny creatures disappear among the dead leaves and grasses, becoming seemingly a part of the vegetation among which they hide. It has been stated by several authorities that in the south this species raises two broods, but this information has evidently not been gained from first hand observation, for, unless some mishap occurs to the first clutch of eggs, no more will be laid that season. The Bob-white is an adept at hiding, and unless too closely pressed, will always seek to escape by running through the dense grass and underbrush, which it does with great rapidity.

Chæmepelia passerina passerina. Ground Dove. A characteristic bird of the Lower Austral zone, this species, while formerly abundant, is now quite uncommon. Its decrease during the past five years has been rapid and the few that now breed are restricted to three or four widely separated localities. From 1910 to 1913 I noted it in considerable numbers throughout the county. The cause of its rather sudden decrease is not apparent; the elements cannot be considered as a contributing factor, at least not to the extent of bringing about its almost complete extermination, since this bird can easily sustain itself through protracted periods of intense cold, which, however, rarely occur in this latitude. The winter of 1917-18 was the most severe within the memory of the oldest inhabitants of Savannah, but even before this the Ground Dove had already decreased to the point of almost total disappearance. To the agency of destruction by man, either, cannot be attributed it's decline from an abundant species to one now decidedly uncommon, as it is not considered good eating. Neither can the conversion of its haunts to agricultural uses be a cause of its present scarcity, since it frequents and breeds in country of widely varied character; includin cultivated fields, where it often breeds, invariably placing its nest on the "hills" among the growing vegetables.

During the period when it was abundant and generally dispersed in the county, I had many opportunities to observe its habits, and while it was to be met with in equal abundance in country of greatly diverse character, its preferred haunts were sparsely timbered woodland containing low and dense undergrowth. On every excursion into such localities I always met with it in great abundance, and its interesting and confiding ways so greatly endeared it to me that I have viewed its gradual disappearance with sorrow and regret.

In its choice of nesting sites, it exhibits a very wide range. It most frequently selects a low bush, either thinly or densely foliaged. Other situations in which I have found nests include the top of a low stump; high up on a horizontal limb of a large pine, and frequently, upon the ground. An instance of its nesting on the ocean beach came under my observation on May 13, 1915, on Ossabaw island. In this case there was no attempt at nest building, the eggs being deposited in a slight depression in the sand; and when breeding on the ground in woodland or cultivated fields, little or no material is assembled. In fact, nest building occupies little of the time and attention of this species, as when placed in trees or bushes the nest is simply a slight affair of a few twigs loosely interlaid. Further evidence of this bird's disinclination to build a nest for the reception of its eggs is found in the fact that I once found a set in a deserted nest of the Cardinal (*Cardinalis cardinalis cardinalis*). The long nesting period of the Ground Dove is attested by numerous observers, although I have myself never secured eggs earlier than April 15, nor later than June 6; nor have I seen other evidences of early or late nesting. So gentle and confiding are these birds that it is often possible to touch them while on the nest, especially if incubation is advanced. Upon dropping off the nest they always simulate lameness, dragging themselves over the ground with drooping wings in an effort to draw the intruder away. I am of the opinion that

they remain mated for life, since they are observed throughout the year most frequently in pairs.

During the past four years I have been unable to locate a single nest of this species, so uncommon has it become. The last nest noted by me was on June 6, 1916, containing two incubated eggs. It was placed among the terminal twigs of a horizontal limb of a large pine, at a height of seven and a half feet. It used to be a common and familiar bird in the rural settlements, nesting in the shade trees and shrubbery about farm houses. Its rather mournful note could be heard throughout the breeding season, and many pairs could be seen fearlessly walking in the roadways and narrow paths, never flying and seldom even more than moving to one side as a person passed by. This species is non-migratory, passing its entire life in or very near the locality at which it was hatched. So attached to certain localities does it become that even if the undergrowth is cleared and the land cultivated the bird remains, nesting on the ground among the vegetables.

Colaptes auratus auratus. Flicker. Wherever there are areas of cut-over lands on which remain an abundance of dead trees this species will be found in large numbers. At all seasons it exhibits a preference for open pine barrens, but, particularly during the breeding season, is occasionally met with about the edges of swamps if they contain suitable nesting sites. It is abundant on all of the wooded islands, particularly Ossabaw island, where I observed it in large numbers in May, 1915. Here it is oftenest seen in the woods close to the salt marsh or adjoining the beach, apparently not frequenting in any numbers the more heavily forested interior of the island. It prefers tall dead palmetto trees in which to breed and all along the margin of the island can be seen numerous holes which this woodpecker had excavated.

The tendency — too well known to receive more than passing notice here — of this species to continue laying eggs if they are taken has been often noted by me, although

the number of eggs that are laid by a pair in a season if continually robbed is much smaller than more northern breeding Flickers have been known to deposit. In 1915 I secured some data concerning this habit. On May 6, I found a nest in a dead pine at a height of ten feet, containing six fresh eggs, which I took. On May 30 it contained five eggs which I also collected, and a third set, consisting of five, was completed on June 20. At this point, however, the birds deserted the nesting hole and excavated a new one nearby which was inaccessible. The hole from which these eggs were taken was deepened before each new set was deposited. Upon collecting the second set an increased depth of 2½ inches was noted, while the birds removed an inch and a half of wood before depositing the third set. After this last excavation the hole measured twenty-two inches in depth. On April 29, 1916, I found a nest containing five slightly incubated eggs. This is my earliest breeding record. The hole was eight feet high in an oak stump. I have found nests as low as five feet, but this species usually excavates far up and in dead trees on the verge of collapse. According to my observations the Flicker breeds very irregularly. I have noted incubated eggs on April 29, and have seen birds excavating, late in May, what I considered their first hole of the season.

In approaching an occupied nest, if it is close to the ground, the sitting bird always leaves the hole before the observer arrives closer than fifty or seventy-five feet from the nesting tree. If the hole is high up, however, the bird remains in it, often not leaving until the trunk of the tree is rapped upon several times.

This species secures much of its food upon the ground. In crossing any tract of cut-over land upon which has been left numerous limbs and rotten trunks it is not unusual to note a number of Flickers feeding among the brushwood, industriously chiseling out large chunks of rotten wood in their search for insects. When disturbed they generally fly quite a distance off and alight high up on some tree.

A nest-full of half grown Flickers is indeed an interesting, if noisy, crowd of youngsters. I can recall to mind no other bird voice that sounds more like the hissing of a large snake. It is doubtful, however, whether this sound is produced by the young birds in order to frighten their enemies; indeed my observations convince me that this is not the motive that prompts the uttering of this peculiar note, since it is not only given when the young are disturbed by a person, but is uttered whenever the parents return to the nest with food. The young remain in the nest about sixteen days, at the end of which period the five or six full grown birds fill the nesting hole to overflowing. They are very ravenous, requiring a great amount of food daily, both parents working unceasingly during the daylight hours to supply the demand for sustenance. During the first few days of life out of the nest the young remain entirely upon the ground, feeding largely upon ants. They soon become strong upon the wing, however, and as winter approaches, they, together with the parents, can be observed high up among the branches of berry-bearing trees, feeding upon the fruit. In this latitude insects do not entirely disappear in winter, but the Flicker's diet is chiefly vegetable during that season.

REVIEW OF "MIGRATION RECORDS FOR KANSAS BIRDS":

(Wilson Bull., 1918, Dec. 1919, March and June.)

I have read and re-read the series of articles bearing the above title: published by the instructress in Zoölogy of the Kansas State University. Having resided in northeastern Kansas for fifteen years, I am naturally much interested in the *ornis* of the entire state. Many of the records in the article cited above, being so greatly variant from the results of my own observations and records, and some of them so manifestly misleading, I feel that one should, in the interests of exact ornithological records,

make running comment on many of the species and subspecies variously accredited to the state.

In so doing I wish to express my conviction that many of the statements made in the article I criticize are far too sweeping. What is asserted may be true of isolated portions of Kansas: it is most certainly *not* true of *some* portions of Kansas.

Again, one fails to see how one can say,—"No records"; and yet make broad statements regarding occurrence, and manner of occurrence.

7. *Gavia immer*—Loon.

Truly, a "rare migrant." A single flock (of seven) passing over Blue Rapids, October 30, 1919, is my one record.

59. *Larus franklini*—Franklin Gull.

"A rather common migrant." I should call it a *very* common migrant.

69. (For Foster's Tern, *lege* Forster's.)

74. *Sterna antillarum*—Least Tern.

"Intermittantly common summer resident." Qualify by saying, from central Kansas southerly. (One questions the use of the word "resident" in this connection. A "resident" remains the year through. It were better to use the term ",habitant.")

131. *Lophodytes cucullatus*—Hooded Merganser.

"Summer resident." This, extremely doubtful.

137. *Mareca americana*—Baldpate.

"Rare summer resident." Occurrence in summer, greatly doubtful.

142. *Spatula clypeata*—Shoveller.

Same characterization; and the same comment, thereat.

144. *Aix sponsa*—Wood Duck.

"Now nearly extinct." This, hardly true, today. The Wood Duck is still fairly abundant, in some regions; and greatly so in preserves. (In Louisiana it still abounds, in a ferial condition.)

149. *Marila affinis*—Lesser Scaup.

(The writer saw a pair of these Ducks at Elmdale in July, 1919. There were no indications, whatever, of their breeding.)

180. *Olor columbianus*—Whistling Swan.

"Winter resident." This, most improbable.

181. *Olor buccinator*—Trumpeter Swan.

"A rare migrant." This species being practically extinct can hardly be truthfully said to be a "migrant," *anywhere*.

203. *Nyctanassa violacea*—Yellow-crowned Night Heron.

"Rare as summer resident." Decidedly so: I have never met with it,—in north, central or southern Kansas.

215. *Coturnicops noveboracensis*—Yellow Rail.

"A rare summer resident." This is absurd, enough. The most southerly breeding record extant is for southern Minnesota; and even that is rather doubtful. (The writer hereof modestly avers that he is an authority on the breedings of this Rail: having studied it for fifteen years, during June, in North Dakota.)

216. *Creciscus jamaicensis*—Black Rail.

The writer once flushed a single Rail of this species from a marsh in Stafford county.

219. *Gallinula galeata*—Florida Gallinule.

(Not listed.) But it has been found breeding in Kansas,—Coffey county,—June, in marshy margin of a lake: nest on a board, at high water. This record now made for the first time by the finder, P. B. Peabody.

221. *Fulica americana*—Coot.

"Common summer resident"—WHERE?

224. *Steganopus tricolor*—Wilson Phalarope.

"... female should be returning south the middle of July...." This I consider doubtful. Few baby Phalaropes are hatched, on the coulees of North Dakota, before July 20, at the earliest. And since both parents,—quite contradictorily,—join in the care of the young, it is most improbable that the females would desert their charges before the end of July, at the earliest.

225. *Recurvirostra americana*—Avoset: (Advisedly so-called.)

"Rare summer resident." One would like a word of proof of this allegation.

251. *Vetola haemastica*—Hudsonian Godwit.

"Rare migrant." Hardly,—on the whole: I once watched a flock of thirty, or more, in Coffey county, one spring.

(Under, Solitary Sandpiper:—for "full," *lege Fall?*)

258 and 258a. For "Willett" *lege* Willet.

262. *Tryngites subruficollis*—Buff-breasted Sandpiper.

"Rare migrant." Formerly, at least, not so: I used to find flocks, not a few, numbering from five to a dozen, in Coffey county, spring-time, thirty years ago.

278. *Leucopolius*,—(NOT "—pholus"), —*nivosus alexandrinus*—Snowy Plover.

"Rare summer resident, Southwestern Kansas." But,—I found the Snowy Plover *abundant*, in Stafford county, the first of June.

(By the way: the above affords a horrid example of the futility and cumbersome result of an invariant application of the procrustean Law of Priority. Now,—"*Aegialitis nivosa*" was poetic, simple, meaningful, fit. But,—"*Leucopolius*"!—and "*alex-*

andrinus"!—both of them archaic, stilted, and intrinsically unmeaning. The one lovely, specific name,—*nivosus*,—and that, of course, changed for grammatical reasons,—is the one element in the entire concatenation that could afford one scintilla of intelligibleness to the non-classical student.)

305. *Tympanuchus americanus*—Prairie Hen.

"Locally common year-round resident." On the contrary, now growing very rare everywhere.

325. *Catharista urubu*—Black Vulture.

"A common summer resident in Barber and Comanche counties. No Data" (!!!). How, then, do you know that this most-improbable allegation holds good, in fact?
(*urubu*, indeed!)

327. *Elanoides forficatus*—Swallow-tailed Kite.

"Irregular summer resident." If occurring, most-unlikely as a breeder. I once watched a flock of three, in a wide Kansas valley,—as they soared and manoeuvered, with duckling-like "quackings." One of these was brought down from far heights, with a 12-guage shell, winged. To my great sorrow, the specimen could not be located, in the woodland wherein it fell.

331. *Circus hudsonicus*—Marsh Hawk.

"Common resident." *Per contra*, really rare, in northeastern Kansas

332. *Accipiter velox*—Sharp-shinned Hawk.

"A year-round resident." *Query.* I have never seen one, in Kansas.

337a. *Buteo borealis krideri*—Krider Hawk—(mis-spelled Kreider).

"A visitant." Rather, one should set down this hawk as a rare *breeder* in eastern Kansas. A pair has nested in this county,—Marshall,—for at least two years.

337d. *Buteo b. harlani*—Harlan Hawk.

"Occasional in winter." Who can blame some of us, bird-amateurs, if we feel strongly inclined to discredit the existence of this reputed sub-species? I have often wondered that the attention of savants has never been seriously called, apparently, to the fact that the type-specimen of the "Harlan" Hawk,—which is reputed to breed only in the South-land,—was an autumnal migrant from the North. (This type was taken in Kansas; but I believe that a magnificent bronzy-black adult, bought by me from a Neosho county pot hunter, in November, antedates the type.)

339. *Buteo lineatus*—Red-shouldered Hawk.

"Common resident—in the southern part of the state." I confess I cannot believe this to be true. But, *if* true, will not the

Kansas examples of *lineatus* prove referable to *B. l. texanus?*

360. *Falco sparverius*—Sparrow Hawk.

"Year-round resident." Has the University of Kansas any proof of the wintral occurrence of the Sparrow Hawk, within our borders?

366 and 367. *Asio wilsonianus* and *A. flammeus*—Long-eared and Short-eared Owls.

"Common summer resident (s)." Save in Coffey county the Short-ear I have found extremely rare; while the Long-eared Owl I have never seen, within the state.

368. *Strix varia*—Barred Owl.

"Common resident." Really, very rare, northeasterly.

378. *Speotyto cunicularia hypogaea*—Burrowing Owl.

"Common resident—central and western Kansas." Not uncommon, northeasterly, breeding.

402a. *Sphyrapicus varius nuchalis*—Red-naped Sapsucker.

"A rare migrant." Very doubtful. If so, to any extent, it must be in the extreme western part of the state.

413. *Colaptes cafer collaris*—Red-shafted Flicker.

"A rare resident in eastern Kansas." Not resident, at all; but rather an irregular wintral visitant. May occur, as breeder, in the extreme western portion of Kansas.

417. *Antrostomus vociferus*—Whip-poor-will.

"Common all summer." If so, WHERE? I have never seen nor heard it, in Kansas.

420c. *Chordeiles virginianus sennetti*—Sennett Night Hawk.

"Not uncommon in summer; one record, Lawrence." Patrick Floyd took a typical specimen, thirty years ago, in Coffey county.

466 and 466a. *Empidonaces trailli* and *t. alnorum*—Traill and Alder Flycatchers.

It is extremely doubtful if *trailli* occurs in Kansas. *Alnorum* is the form that occurs (rarely) in Marshall county, in Concordia, and probably Coffey county. (In the latter region, the Alder Flycatcher is common.)

474b. *Otocoris alpestris "pratacola"*—(*legè, praticola*)—Prairie Horned Lark.

474c. *O. a. leucolaema*—Desert Horned Lark.

"Permanent resident, western part of the state." It is of great interest to learn of this fact. I used to find *leucolaema* abundant in northeast Wyoming; mingled, in winter, with Mr. Oberholser's (unaccepted) *enthymia*.

475. *Pica pica hudsonica* (Black-billed) Magpie.

"Rare winter resident." I wish to record, here, the astonishing extension, easterly, of the range of the Magpie into Benson county, North Dakota: Last June, friends observed a specimen,

one afternoon, among the rolling hills beside a wooded lake. Two hours later, we found an old nest in an ash, close to the water's edge.

498c. *Agelaius phœniceus (predatorius)*—Red-winged Blackbird.

". . . remains in winter. . . ." This is very doubtful. In all likelihood, the wintral birds are either *fortis* or *arctolegus:* as the early-spring migrants assuredly are. (Personally, I doubt the occurrence of *fortis.*) Students unaware of the fact will be interested to learn that I have found *arctolegus* breeding commonly in Benson county, North Dakota.

498. *Agelaius p. phœniceus*—"Northeastern" Red-wing.

"Migrant." There is no such bird. The type-Red-wing is found in Florida.

501 and 501.1—*Sturnella magna et neglecta*—Eastern and Western Meadowlarks.

(Neglecta) "replaces the (Eastern) Meadowlark in the western part of the state; not uncommon in eastern Kansas." I find *neglecta* to be the wintral habitant; while, probably, it may nest in eastern Kansas, sporadically.

514a. *Hesperiphona vespertina montana*—Western Evening Grosbeak.

"A rare migrant." No proof of this statement is offered. The Evening Grosbeak of northeastern Wyoming having proven, incredible as it may seem, to be of the type-race, it is unbelievable that Kansas birds can be anything else.

519. *Carpodacus mexicanus frontalis*—House Finch.

"Rare resident." WHERE? If anywhere, must be in the extreme west.

521a. *Loxia curvirostra stricklandi*—Mexican Cross-bill.

"Irregular winter visitants." This, I doubt, greatly. I can find no difference between specimens taken by Patrick Floyd in Coffey county, many years ago, and the large suite taken by myself in Weston county, Wyoming: the latter proving to be *bendirei.* But then,—Dr. Allen once wrote me:—"I can match your Wyoming birds, in both size and character of bill, with birds taken in New England." Truly, then, our *curvirostra* Cross-bills are just a sort of Chinese puzzle, anyhow!

528. *Acanthis linaria*—Red-poll.

"Rare as a winter visitant." I have never seen it. Students will be interested to learn that I found the predominant Red-poll of the Red River Valley to be *exilipes;* and that *rostrata* was sparingly found,—usually in March and April. (*Exilipes* fairly *swarmed,* during February and March; and Mr. Brewster once told me that some of my specimens were "the whitest birds (he had) ever seen, from any region." But I saw one specimen, in high plumage, that was hoary-white, all over.)

529a. *Astragalinus tristis pallidus*—Pale Goldfinch.

". . . . three collected in March . . . and April. . . ." I believe that, in time, this alleged subspecies will be entirely discredited. The above statement seems to me to involve a palpable error: If even an expert cannot differentiate *tristis* and *pallidus*, in the breeding plumage,—UNLESS HE KNOWS WHENCE THE SPECIMENS CAME!,—how can *any one* pronounce on the specific status of birds in the eclipse plumage? (It may not be impertinent to state that I have been trying, for months, to "run to earth" a really typical specimen of *pallidus:* but have failed. A male from Alberta proved to be *tristis!*)

537. *Calcarius pictus*—Smith, (better, Painted), Longspur.

"A common winter sojourner." Thus I found it, in Coffey county, a quarter-century ago. Of late years I have never seen one.

539. *Rhyncophanes mccowni*—McCown Longspur.

"Common in winter in western Kansas." Unquestionably breeds there.

540. *Poœcetes gramineus confinis*—Western Vesper Sparrow.

"Migratory in western Kansas." Undoubtedly breeds there.

546a. *Ammodramus savannarum bimaculatus*—Western Grasshopper Sparrow.

"The Museum records (*bimaculatus*) May 3 to December 3." One naturally infers from this statement that the Western Grasshopper breeds in eastern Kansas. This is counter to all experience: that a type-species and its sub- should both breed in identical localities.

547.—*Passerherbulus henslowi*—Henslow Sparrow.

"Rare summer resident." Fairly common, some seasons, in Marshall county. (Only an expert can identify this sparrow, "in the bush"; and even then only by its laconic note,—"T'sirp,"—or "D'sert").

549.I. *Passerherbulus nelsoni*—Nelson Sparrow.

"A rare summer resident." IMPOSSIBLE! I have never found *nelsoni*, in summer, south of Benson county, North Dakota. Had it occurred, in the several regions to the south of that region, where I have been, I should most certainly have recognized it, for its note is unique: just a squeezed-out,—"Kre-e-zhl." (How many younger students know that the Nelson Sparrow absolutely hides its nest: which is the daintiest, most-elaborate sparrow fabric extant, save that of the Le Conte Sparrow,—with which, however, it is quite identical)?

553. *Zonotrichia querula*—Harris Sparrow.

". . . rare winter resident." This is utterly counter to my repeated experience: In both the Kansas regions wherein I have

repeatedly wintered, this great sparrow has been wintrally very common.

554 and 554a. *Z. leucophrys* and *Z. l. gambeli*—White-crowned and Intermediate Sparrows

(Records furnished by the Museum of the Kansas State University seem to be confused and conflicting. Who can differentiate these two, in the field?) It is probable that the White-crown is the prevailing migrant form.

558. *Zonotrichia albicollis*—White-throated Sparrow.

"Common migrant." I found our winsome *albicollis* wintrally common, in Coffey county.

560. *Spizella passerina*—Chipping Sparrow.

"Common in summer." In Marshall county, decided rare, at any time.

563a. *Spizella pusilla arenacea*—Western Field Sparrow.

"Rare: one record." This does not cover the known facts. *Arenacea* has been credibly reported as a migrant, in southwestern Kansas. Even this is misleading. It is confidently to be expected that expert observers will find this bird breeding commonly, clear across western Kansas.

567. *Junco hyemalis*—Slate-colored Junco.

". . . abundant in winter." In Marshall county, *never* common. (Why not hiemalis?)

567f. *Junco h. montanus*—Montana Junco.

"In western Kansas a winter resident." This alleged subspecies, now discredited. The bord referred to is probably *mearnsi:* the Junco which I used to find, now and then, in winter, among the flocks of *aikeni*, in Wyoming.

581j. *Melospiza melodia juddi*—Dakota Song Sparrow.

"Migratory, western Kansas, no record." *Juddi* ought to be found, in migrations, clear across our state. But then,—even experts are not agreed as to the territorial delimitations of this newly-descript race.

588. *Pipilo maculatus arcticus*—Arctic Towhee.

"A winter resident, rare in eastern Kansas." On the contrary, I once found it decidedly common, near Eureka and Eldorado, during the vernal migrations. (How inaccurate to call this bird the "Arctic" Towhee! It is the breeding form, in northeastern Wyoming, where it is much more common than I have ever found the "Common" Towhee anywhere).

596 (not 597)—*Zamelodia melanocephala*—Black-headed Grosbeak.

"Common summer resident. No migration records." This would seem to be a decided error: save that this Grosbeak *may* breed commonly, in far western Kansas.

597a. *Guiraca cærulea lazula*—Western Blue Grospeak.

"In central and western Kansas, common in summer." Quite common, also, in Marshall county.

610. *Piranga rubra*—Summer Tanager.

"In eastern Kansas, common in summer." I found it very rare in Coffey county. Never seen elsewhere.

617. *Stelgidopteryx serripennis*—Rough-winged Swallow.

"Common in summer." Decidedly rare, in the regions known to me.

618. *Bombycilla garrula*—Bohemian Waxwing.

"A rare winter visitant." This is now no longer true. During three winters I have found it at least fairly common; and, during the winter of 1919, decidedly so. (How misleading is "*garrula*": the sole note of this bird is just a wheezy murmur!)

619. *Bombycilla cedrorum*—Cedar Waxwing.

"Year-round resident." I doubt if the Cedar Waxwing is ever regularly habitant, here, in winter.

621, 622a, 622c—*Lanius spp*—Shrikes.

One greatly doubts if *any* Shrike is a "permanent resident," in Kansas. Certainly, there is always a gap between the wintrally-habitant and the breeding, Shrikes. (I confess I have hitherto neglected to secure specimens for the determination of the local breeding form.)

631. *Vireo griseus*—White-eyed Vireo.

It is utterly incredible that any bird so noisy as a Vireo should be "common" anywhere in Kansas; yet never seen, during nearly thirty years, in the counties of Coffey and Marshall.

636. *Mniotilta varia*—Black-and-White Warbler.

"A fairly common summer resident." INCREDIBLE! So far as my own region is concerned, it is found only in the migrations; and even then, very sparingly.

637. *Proto* (not Protho), *notaria citrea*—Prothonotary Warbler.

". . . common . . . wherever swamps are found." Are there really "swamps," in Kansas? I have never seen one. (The name, "Prothonotary," is absurd: even if the beak of this Warbler *is* unique enough to set the bird in a Genus of its own! Why not, as a fitting vulgar name, call this Warbler the "River" Warbler?)

647. *Vermivora peregrina*—Tennessee Warbler.

"Rare migrant." Fairly common, now and then, in Marshall county; and in Topeka.

655. *Dendroica coronata*—Myrtle Warbler.

I can remember when this Warbler really *was* "a common migrant," in Coffey county. It is so no more.

658. *Dendroica cerulea*—Cerulean Warbler.

". . . rare summer resident." Doubtful. We are out of the breeding range of this exquisite creature.

661. *Dendroica striata*—Black-poll Warbler.

"Common migrant." In my region, decidedly uncommon.

674. *Seiurus aurocapillus*—Oven-bird.

"Common summer resident." I have never met it, here.

675 and 676. "Grinnell" and "Louisiana" Water-Thrushes.

One would be utterly disposed to discredit any merely *field* identifications, covering these two races of Water-Thrush. This much, at least, I KNOW: The "Louisiana" Water-Thrush now breeds as far north as Minneapolis, Minn.; while the Water-Thrush of the North reaches that latitude some time between the first and the tenth of August, most years. (Why not eliminate the utterly meaningless "Louisiana" as a designation; and substitute the title, "Southern" Water-Thrush?)

681. *Geothlypis trichas*—Maryland Yellow-throat.

In the matter of the Yellow-throats there seems to me some confusion, in the List sent out by the Kansas State University. We should all bear in mind that Kansas is entirely out of the reputed Breeding Range of the type-species; and that our bird is probably *brachidactyla*. (This last word, of course, should be spelled with a Y,—Brach*y*—).

684 *Wilsonia citrina* (*lege. mitrata*)—Hooded Warbler.

"A rare summer resident." Have never met it. The same is true of the Wilson Warbler.

687. *Septophaga* (*legè "Setophaga"*), *ruticilla*—Redstart.

"In summer a common resident." I have found it breeding but once: 1920.

718. *Thryothorus ludovicianus*—Carolina Wren.

"A common resident." Common, enough, in Coffey county. Some nine specimens seen in Marshall county, these fifteen years.

719c. *Thryomanes bewicki cryptus*—Texas Bewick Wren.

"A common migrant in southwestern Kansas." I found this exquisite singer breeding to a fairly common degree in Barber and Comanche counties.

722. *Nannus hiemalis*—Winter Wren.

"Not uncommon in winter." I have never met it.

735a and 735a. (These, of course, should have been, respectively, 735 and 735a; with the former "Black-capped" and the latter, "Long-tailed," Chickadees.) One of the biological anomalies extant lies in the fact that both the species and the sub-species, named, should occasionally breed, side by side.

757. *Hylocichla alicia*—Gray-cheeked Thrush.

758a. *Hylocichla ustulata swainsoni*—Olive-backed Thrush.

These two undoubtedly co-migrate, both spring and autumn; and they pass us in mighty flocks. Though familiar with both, I should not presume to think of trying to differentiate them, in the

field. Utterly familiar with the variant thrush calls, one is yet tantalizingly unable to differentiate the two kinds of birds that utter the sound. It is quite likely that the *swainsoni* Thrushes that migrate through western Kansas are of the now-rejected sub-species, *almae:* which is, some of us are quite sure, a thoroughly good sub-species. Its temperament, its chosen breeding grounds, and its habits are all quite unique. There are several particularly good ornithologists that agree with me, in this contention.
761 and 761a. *Plantesticus* (*legè, Planesticus*).

This review is far and away from having any of the remotest personal animus or bearing. It is, rather, just AN IMPERIOUS DEMAND FOR MORE LIGHT. Past experiences have compelled me, at times, to disavow alleged personal differentiations; and I have hence felt it in no sense uncharitable to view, with skeptical mental attitude, certain differentiations made by others. It is a thousand pities that we might not have, in Kansas, some Nestor like the late Professor Snow, to criticize, formulate and re-tabulate the records made by men less learned or less critical; thus giving the world of Ornithological Science a sound and accurate survey of the *ornis* of Kansas. One also longs for the day when the scientists of this state will bring such concerted stress to bear upon our uncertain State Legislature that they may grant to accredited and genuine bird students the right to take, and to hold in possession specimens of bird-life. There are problems of absorbing interest, with some of us, that can be solved in no other way. The resulting prejudice upon bird life would be quite inappreciable; while the results of the licensing would be of substantial and lasting benefit to the local study of Ornithology.

Throughout, the reviewer has failed to repeat the scientific specific-nomen: as a prop to the proper use of the trinomial system. In this I am sure I should have, were he alive, today, no less a backer than beloved and brilliant Elliott Coues. How he did *hate* tautonomy: and how finely did he voice that hatred!

P. B. PEABODY.

Blue Rapids, Kansas.

ANNUAL MEETING.

The sixth annual meeting of the Wilson Ornithological Club will be held in the lecture room of the Zoölogical Laboratory of the University of Chicago (the Hull Biological Laboratories) on Monday and Tuesday, December 27 and 28, 1920, in connection with the meetings of the American Association for the Advancement of Science. The most of the American Association meetings occur later in the same week, so that there will be few conflicts with our meetings.

While there will be a program of unusual interest and value, there will also be business transacted of great significance to every member of the Club, relating to the future policy of the organization. It is earnestly hoped that the attendance of members at the first business session, which will occur on Monday morning, at 8:30 o'clock, may be large and representative.

Details of the program cannot be given at this early date, but it can be stated that there will be sessions for the reading of papers on Monday afternoon and evening, and on Tuesday morning and afternoon if necessary, to which the general public in invited.

MEETING OF THE AMERICAN ORNITHOLOGISTS' UNION

The meeting of the American Ornithologists' Union in Washington, D. C., November 8-11, 1920, was one of the largest in the history of the Union. One-half of the Fellows and about ten per cent of the entire membership were in attendance. The business meetings on Monday were held at the Cosmos Club and the other sessions at the U. S. National Museum. The election of Fellows and Members included Robert Cushman Murphy of Brooklyn, N. Y., as Fellow; E. C. Stuart Baker and Dr. Percy Lowe of London, Honorary Fellows; 13 Foreign Corresponding Fellows; 5 Members, Ira Noël Gabrielson, Loye Holmes Miller, Aretas Andrews Saunders, Thomas Calderwood Stephens, Myron Harmon Swenk, and 307 Associates. The election of officers for 1921 resulted as follows: President, Dr. Witmer Stone, Philadelphia; vice-president, Dr. George Bird Grinnell and Dr. Jonathan Dwight, New York; secretary, Dr. T. S. Palmer, 1939 Biltmore Street, Washington, D. C.; treasurer, W. L. McAtee, Biological Survey, Washington, D. C. The single vacancy in the Council was filled by the selection of Dr. W. H. Osgood of Chicago and the other six members were re-elected. The program of nearly forty papers, five of which were illustrated by motion pictures, covered a wide range of subjects relating to North American birds.

T. S. PALMER, Secretary.

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